Threat and Hazard Identification and Risk Assessment

Presentation to the State Agency Liaisons
23 May12
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Agenda

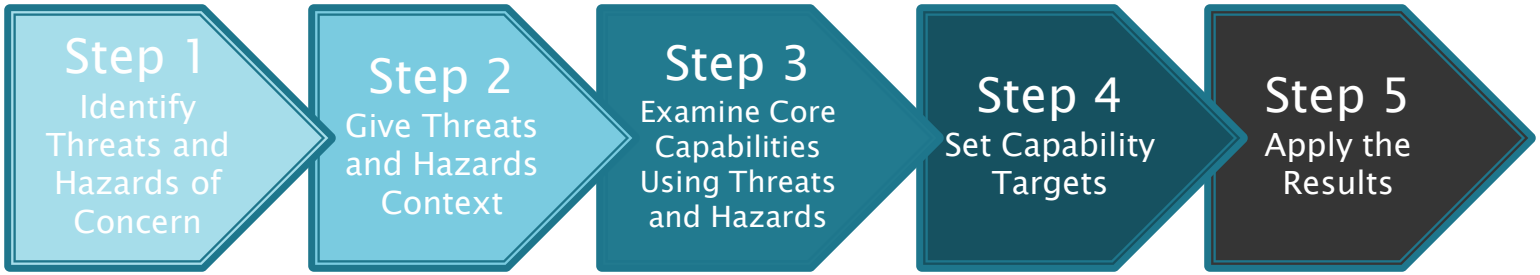
- Background
- THIRA Guidance and Validation
- Work Plan
- Draft Timeline
- Grant Guidance for FFY 12
- Next Steps

Background

- Desire by Congress for greater accountability
- Risk – product of threat/hazard, vulnerability and resulting consequences
- Federal government argument is that current assessment of risk generally is focused on single threat and small area
  - Methodology loses specificity when applies across five preparedness mission areas

THIRA Guidance

Five Step Process



Current Processes

Step 1 – Done in HIVA/Enhanced Mitigation Plan (not to the level required in THIRA)
Step 2 – Done in HIVA/Enhanced Mitigation Plan (not to the level required in THIRA)
Step 3 – Not currently in Process – Initially done in 2011 SPR
Step 4 – Not currently in Process – Initially done in 2011 SPR
Step 5 – Partially addressed by current processes

Validation of THIRA

- Regional Federal Preparedness Coordinator (FPC) to review all state, territorial and other eligible grantee THIRA submissions to ensure alignment with CPG 201
- Elements of Validation
  - Description statements of threats and hazards of concern
  - Outcome statements for all 31 Core Capabilities
  - Estimates of impact in relation to Core Capabilities
  - Capability targets for all 31 Core Capabilities
  - Affirmation that submittal in in compliance with CPG 201

THIRA/SPR Work Plan

- Identification of Hazards of Concern
  - Extract from Hazard Mitigation Plan and State HIVA
  - Update to Hazards used for SPR 2011as baseline
- Development of Desired Outcomes
- Association of Context to Core Capabilities
  - Impacts expected by core capability and hazard-development of matrix
- Set Capability Targets
  - Different from 2011 SPR in that they are more detailed and include performance measures
  - By core capability
- Perform State Capability Assessment and document in SPR Tool

Required THIRA Documents

- Table depicting the type of Hazards/Threats considered by state – Example below

Threat Hazard Group	Threat/Hazard Type
Natural	Earthquake
Description – Cascadia Subduction Zone earthquake M9.0 occurs mid day during the tourist season impacting the entire state	
Technological	Pipeline Accident
Description – Pipeline accident releases 25,000 gallons of flammable liquid into a densely populated area	
Human Caused	Terrorism
Description – An IED explodes in Century Link Field during a Seahawks game requiring evacuation of 67,000 people with 600 fatalities and 8,00 injuries	

Required THIRA Documents

- Table of Desired Outcomes for all 31 Core Capabilities – Example below

Core Capability	Desired Outcome
Planning	Maintain the State Comprehensive Emergency Management Plan on a 4 year cycle, with specific annexes as required
Public Information and Warning	Provide information in a timely manner, consistent with the threat or hazard, to enable people to take appropriate protective measures.
Operational Coordination	Establish and maintain unified and coordinated operational structure and process in the impacted area within 12 hours of an incident

Required THIRA Documents

- Estimated Impact Matrix – Potentially 18 Hazards (may reduce [used 10 for 2011 SPR]) X 31 Core Capabilities – Example Below

	Planning	Public Information and Warning	Operational Coordination	Forensics and Attribution
Earthquake	Convert plan into crises action documents	Warn 2 M people	23 counties Impacted Significantly	N/A
Flood	Convert plan into crises action documents	Warn people in impacted area – Max estimated at 500,000	16 counties impacted	N/A

Required THIRA Documents

- Develop Capabilities Targets for 31 Core Capabilities – Example Below

Core Capability	Desired Outcome
Planning	Maintain the State Comprehensive Emergency Management Plan and other supporting plans on a 4 year cycle, with specific annexes as required
Capability Target: Response: Execute the State CEMP within one hour of incident initiation. Mitigation: Maintain enhanced level of State Hazard Mitigation Plan ensuring plan addresses all state threats and hazards, identifies changing risk patterns and creates strategies to reduce risk. Preparedness: Update CEMP and supporting plans on a 4 years cycle to reflect changes in governmental structure, updated hazards, changed risk environment and changes in operational capability and capacity (includes jurisdictional capability). Recovery: Implement the Recovery Task Force within 1 day of activation and the Washington Restoration Organization within 15 days of Governor's decision.	

- Capability Targets are required as the starting point for the SPR. Assess against the target

Draft THIRA/SPR Timeline

- May 29 – Jul 23 – Development of three documents supporting first four steps of THIRA Process (stakeholder involvement necessary)
- Jun 27 and 28 – THIRA workshop (tentative)
- Jul 23 – Jul 31 – SPR tool set up
- Aug 1 – Oct 26 – Contributor Input to SPR through Capabilities Assessment
- Oct 29 – Nov 21 – Finalization of SPR (Final Draft)
- Nov 26 – Dec 11 – SPR vetting
- Dec 11 – Dec 18 – Governor Review
- Dec 19 – Tentative Submission
- Dec 31 – SPR Due Date

Grant Guidance for FFY 12

- FFY 12
  - No change to allocation process
  - National level risk formula used for HSGP allocations
  - Eligible HSGP and EMPG grantees develop THIRA using CPG 201
  - Submit to grantee's FEMA Federal Preparedness Coordinator by December 31, 2012

Next Steps

- Get THIRA / SPR process approval
- Engage stakeholders in THIRA document production
- Engage stakeholders in SPR process

Questions

Back up Slides

Capability threat / hazard context

THREAT / HAZARD	Earthquake
DEFINITION	Richter magnitude 7.0+; Well built wooden structures destroyed, most masonry and frame structures destroyed with foundations, rail greatly bent, and bridges destroyed; At worst – total destruction; Lines of sight and level distorted; Objects thrown into air.
CORE CAPABILITIES	• Operational Coordination • Supply Chain Integrity and Security • Community Resilience • Long-term Vulnerability Reduction • Critical Transportation • Fatality Management Services • Infrastructure Systems (Response Focus) • Mass Care Services • Mass Search and Rescue Operations • Operational Communications • Public and Private Services and Resources • Situational Assessment • Economic Recovery • Health and Social Services • Housing • Infrastructure Systems (Recovery Focus) • Natural and Cultural Resources

Capability threat / hazard context

THREAT / HAZARD	Tsunami
DEFINITION	Disastrous – Oncoming water immensely powerful and capable of leveling whole towns, even some distance from shore; Waves 50+ feet above sea level, moving extremely fast; Wavelengths over 500 km when arriving on shore.
CORE CAPABILITIES	• Public Information and Warning

THREAT / HAZARD	Human Pandemic
DEFINITION	Outbreak with 1 to 2% case fatality rate (excess fatality rate of 300 to 600 per population of 100,000).
CORE CAPABILITIES	• Public Health and Medical Services

THREAT / HAZARD	Nuclear Accident
DEFINITION	Accident with Wider Consequences – Limited release of radiological material likely to require implementation of some planned countermeasures; Severe damage to reactor core; Release of large quantities of radioactive material with installation; High probability of significant public exposure.
CORE CAPABILITIES	• Planning

Capability threat / hazard context

THREAT / HAZARD	RDD/Nuclear Attack
DEFINITION	Super Radiological Dispersive Device – Sophisticated device containing more than 10,000 Curies of gamma-emitting isotope (such as 60Co or 137Cs); "No entry zone" boundary up to about 600 meters.
CORE CAPABILITIES	• Interdiction and Disruption (Protection Focus)

THREAT / HAZARD	Biological Attack (non-food)
DEFINITION	Successfully weaponized, drug-resistant strain of biological agent released into a crowded, enclosed public location; Highly contagious; Highly virulent; Results in high mortality rates (at least 30%).
CORE CAPABILITIES	• Intelligence and Information Sharing (Prevention Focus) • On-scene Security and Protection

THREAT / HAZARD	Armed Assault
DEFINITION	Single shooter with semiautomatic firearm; Location of shooter known and stationary within a secure perimeter; Shooter potentially has access to additional victims.
CORE CAPABILITIES	• Interdiction and Disruption (Prevention Focus)

Capability threat / hazard context

THREAT / HAZARD	Explosive Devices
DEFINITION	Vehicle-borne improvised explosive device (VBIED) made from cargo van or small box van containing 4,000 pounds to 10,000 pounds of explosives; Lethal air blast range 200 feet to 300 feet; Falling glass hazard 2,750 feet to 3,750 feet.
CORE CAPABILITIES	• Screening, Search, and Detection (Prevention Focus) • Screening, Search, and Detection (Protection Focus) • Intelligence and Information Sharing (Protection Focus) • Physical Protective Measures
THREAT / HAZARD	**Cyber Attack**
DEFINITION	Nation-State or Terrorist Organization Projection of Power with Limited Resources – Motivated to protect power through cyber attacks on critical infrastructure; Includes threat actors who have limited resources, time, and access to accomplish objectives.
CORE CAPABILITIES	• Forensics and Attribution • Access Control and Identity Verification • Cybersecurity
THREAT / HAZARD	**Steady-State**
DEFINITION	Level of effort is not dependent on hazard severity.
CORE CAPABILITIES	• Risk Management for Protection Programs and Activities • Risk and Disaster Resilience Assessment • Threat and Hazard Identification • Environmental Response/Health and Safety